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EXAMINER	
HOM, SHICK C	

ART UNIT	PAPER NUMBER
2666	7

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/511,168	WEI, XINGUO	
	Examiner	Art Unit	
	Shick C Hom	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 August 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 14-20* is/are rejected.

7)☒ Claim(s) *7-13 and 21* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 8/22/03 have been fully considered but they are not persuasive.

In page 9 lines 11-22, applicant argued that Henderson does not teach the use of a hierarchical geographical map which represent an area or location nor the step of monitoring a geographical map which summarizes the status of a plurality of network elements as in claim 18 is not persuasive because col. 7 lines 28-54 which recite using the class hierarchy of Common Object Request Broker Architecture CORBA compliant object in a telecommunications network wherein the nsTop class 204 being a base class for all of the network object model object classes, the nsLatLong class 206 represents an item of latitude and longitude data and the nsDName class 210 holding unique distinguished name for an object in accordance with telecommunications management network TMN standards and the nsGeoLink class 212 and the nsGeoNode class 214 handle graphical rendering of communications links and communications equipments for presentation on a geographical map clearly anticipate the use of a hierarchical geographical map which represent an area or location; further, col. 6 lines 4-15 and col. 18 lines 18-24

which recite the management system using the network engineering workstation NEWS for monitoring the network to identify degrading or failing network components and observe behavior of link failure clearly anticipate the step of monitoring a geographical map which summarizes the status of a plurality of network elements as in claim 18.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6 and 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Henderson et al. (5,726,979).

Regarding claim 1:

Henderson et al. disclose the method for managing network elements in a communications network (col. 1 lines 6-10) comprising: establishing a hierarchy of geographical areas in

the communications network (Figs. 2A-B and col. 7 lines 28-54), where an area at a higher level of the hierarchy includes a plurality of areas at a lower level of the hierarchy (col. 7 lines 28-54, col. 8 lines 1-23, col. 15 lines 16-22); representing each network element in a geographical area at a first level in the geographical hierarchy (col. 8 lines 48-67); and summarizing the representation of network elements at a second level in the geographical hierarchy, higher than the first level of the geographical hierarchy (col. 10 lines 5-14).

Regarding claim 2:

Henderson et al. disclose the method wherein the establishment of the hierarchy of geographical areas includes establishing n levels of geographical areas in the network (col. 15 lines 16-22), herein each nth level geographical area includes a plurality of (n-1)th level geographical areas, and wherein the summarization of network elements includes summarizing the representation of network elements at (n-1) levels of geographical areas (col. 10 lines 5-14).

Regarding claim 3:

Henderson et al. disclose the method wherein the management of the communication network includes monitoring the condition of the network elements (col. 6 lines 4-15 and col. 18 lines 18-24), wherein the representation of network elements in the

geographical area includes representing the condition of network elements, and wherein the summarization of network elements at the higher level in the geographical hierarchy includes triggering an alarm (col. 15 line 66 to col. 16 line 7) at the second hierarchical level in response to the condition of a particular network element represented at the first level (col. 15 line 66 to col. 16 line 7).

Regarding claim 4:

Henderson et al. disclose the method wherein the communication network is managed in real-time (col. 12 line 66 to col. 13 line 6), and further comprising, following the representation of each network element in the geographical area: updating the condition of network elements represented in the first level of the geographical hierarchy; and wherein the summarization of network elements at the higher level in the geographical hierarchy includes setting the alarm (col. 15 lines 16-44) at the second hierarchical level in response to changes in the condition of network elements (col. 1 lines 12-30, col. 3 lines 29-46).

Regarding claim 5:

Henderson et al. disclose the method wherein the representation of each network element in the geographical area includes representing the network element as a first icon on a

map of geographical areas on the first level of the geographical hierarchy (col. 15 lines 23-33).

Regarding claim 6:

Henderson et al. disclose the method wherein the representation of each network element in the geographical area includes representing the condition of the network element with the first icon that varies with respect to the status of the network element (col. 15 lines 10-51).

Regarding claim 15:

Henderson et al. disclose the method for determining the failure of a network element in a communications network (col. 15 line 66 to col. 16 line 7) comprising: representing the communications network as a hierarchy of geographical areas (Figs. 2A-B and col. 7 lines 28-54), where an area at a higher level of the hierarchy of geographical areas includes a plurality of areas at a lower level of the hierarchy of geographical areas (col. 7 lines 28-54, col. 8 lines 1-23, col. 15 lines 16-22); detecting the failure of network elements; sending an alarm to the higher level in the geographical hierarchy (col. 15 line 66 to col. 16 line 7) summarizing the failure of the network elements; and responsive to the alarm (col. 10 lines 5-14), identifying and locating failed network

elements at a particular lower level of the geographical hierarchy (col. 15 line 66 to col. 16 line 7).

Regarding claim 16:

Henderson et al. disclose wherein the representation of the communications network as the hierarchy of geographical areas includes representing the communications networks as a hierarchical arrangement of geographical maps (col. 7 lines 28-54) wherein a map at the higher level of the hierarchy of geographical areas includes a plurality of maps from the lower level of the hierarchy of geographical areas (col. 2 lines 30-49).

Regarding claim 17:

Henderson et al. disclose wherein the sending of the alarm to the higher level in the geographical hierarchy summarizing network element failures (col. 15 line 66 to col. 16 line 7) includes defining an alarm trigger that is responsive to the network element failures (col. 10 lines 5-14 and col. 15 line 66 to col. 16 line 7).

Regarding claim 18:

Henderson et al. disclose the method for determining the failure of a network element in a communications network (col. 15 line 66 to col. 16 line 7) comprising: monitoring a geographical map which summarizes the status of a plurality of

network elements in the communications network (col. 6 lines 4-15 and col. 18 lines 18-24); on the map display (col. 7 lines 28-54), receiving an alarm representing the failure of network elements (col. 15 line 66 to col. 16 line 7); and responsive to an alarm, narrowing the scale of a map (col. 15 lines 16-44) to geographically located failed network elements (col. 15 line 66 to col. 16 line 7).

Regarding claim 19:

Henderson et al. disclose the system for presenting a communications network comprising: a plurality of network elements having geographic locations (Figs. 2A-B and col. 7 lines 28-54); a database including the geographical locations of the network elements (col. 3 lines 9-29); an application connected to said database to organize the communications network into a hierarchical arrangement of geographic areas (col. 12 line 43 to col. 13 line 51), wherein each network element is located at a lower level in the hierarchy of geographical areas (col. 7 lines 28-54, col. 8 lines 1-23, col. 15 lines 16-22), said application summarizing the representation of the plurality of network elements at a higher level in the hierarchy of geographical areas (col. 10 lines 5-14); a display having an input connected to said application to present a modifiable display of network elements as represented in

multiple levels in the hierarchy of geographical areas (col. 3 lines 9-46); and a supervisor interface connected to said application, said supervisor interface providing commands to said application to modify said display (col. 1 lines 12-30, col. 3 lines 29-46).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henderson et al. (5,726,979) in view of Cutrer et al. (5,668,562).

For claims 14 and 20 Henderson et al. disclose the method/system described in paragraph 3 of this office action. Henderson et al. disclose all the subject matter of the claimed invention with the exception of the communications network being

a fixed wireless system (FWS) wherein the network elements are base stations and remote units as in claims 14 and 20.

Cutrer et al. teach that it is known to provide wireless communications for an in-building coverage area having a hub, a number of permanent antennas and a number of links connecting hub to antennas capable of sending and receiving signals in the radio-frequency (RF) range whereby the hub is typically a base station for cellular or cordless telephony including mobile users as set forth at col. 4 lines 17-48 in the field of telecommunications which clearly anticipate the communications network being a fixed wireless system (FWS) wherein the network elements are base stations and remote units as in claims 14 and 20. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the fixed wireless system wherein the network elements are base stations and remote units as taught by Cutrer et al. in the telecommunications network of Henderson et al. The fixed wireless system wherein the network elements are base stations and remote units can be implemented by substituting the SONET or wired network with the wireless system. The motivation for using the wireless system as taught by Cutrer et al. in the telecommunications network of Henderson et al. being the

desirable advantage not having to re-wire a building to added services and to providing more mobility to users.

Allowable Subject Matter

6. Claims 7-13 and 21 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any response to this final action should be mailed to:

Box AF

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications; please mark "EXPEDITED PROCEDURE")

Or:

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick Hom whose telephone number is (703) 305-4742. The examiner's regular work schedule is Monday to Friday from 8:00 am to 5:30 pm EST and out of office on alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao, can be reached at (703) 308-5463.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

DANG TON
PRIMARY EXAMINER

SH

November 17, 2003